

WHAT IS CLAIMED IS:

1. A method of controlling a clock frequency of a processor, comprising:

5 acquiring an executable instruction count per unit time of the processor;

 acquiring a clock count per unit time of the processor;

10 determining whether a ratio of the executable instruction count to the clock count exceeds a predetermined value; and

 controlling the clock frequency of the processor in accordance with a result of the determination.

15 2. The method according to claim 1, wherein a series of processes including the acquisition of the executable instruction count, the acquisition of the clock count, the determination, and the control of the clock frequency are repetitively executed at a predetermined time interval.

20 3. The method according to claim 2, wherein the predetermined time interval is changeable.

 4. The method according to claim 1, wherein the control includes controlling to decrease the clock frequency of the processor when the ratio is determined not to exceed the predetermined value.

25 5. The method according to claim 1, wherein the determination includes determining whether a ratio of
i) a difference between two executable instruction

counts acquired successively to ii) the clock count exceeds a predetermined value.

6. The method according to claim 1, wherein the determination includes determining whether a ratio of
5 i) a sum of executable instruction counts which are successively acquired and multiplied by a predetermined weighting factor to ii) a sum of clock counts which are successively acquired and multiplied by a predetermined weighting factor exceeds a predetermined value.

10 7. The method according to claim 1, wherein the control includes increasing the clock frequency when the ratio is determined as a result of the determination to exceed the predetermined value, and decreasing the clock frequency when the ratio is
15 determined not to exceed the predetermined value.

8. The method according to claim 1, wherein the predetermined value is changeable.

9. An electronic apparatus, comprising:
20 a clock oscillator configured to supply a clock signal;

a processor configured to generate an internal clock on the basis of the clock signal supplied from the clock oscillator; and

25 a control unit configured to control a frequency of the internal clock in accordance with a ratio of an executable instruction count per unit time to a clock count per unit time of the internal clock generated by

the processor.

10. The apparatus according to claim 9, wherein
the control unit determines whether the ratio of the
executable instruction count to the clock count exceeds
5 a predetermined value, and controls a clock frequency
of the processor in accordance with a result of the
determination.

11. The apparatus according to claim 9, wherein
the control unit determines whether a ratio of i) a
10 difference between two executable instruction counts
acquired successively to ii) the clock count exceeds a
predetermined value, and controls a clock frequency of
the processor in accordance with a result of the
determination.

15. The apparatus according to claim 9, wherein
the control unit determines whether a ratio of i) a sum
of executable instruction counts which are successively
acquired and multiplied by a predetermined weighting
factor to ii) a sum of clock counts which are
20 successively acquired and multiplied by a predetermined
weighting factor exceeds a predetermined value, and
controls a clock frequency of the processor in
accordance with a result of the determination.

13. The apparatus according to claim 9, wherein
25 the control unit increases the clock frequency when
the ratio is determined to exceed the predetermined
value, and decreases the clock frequency when the

ratio is determined not to exceed the predetermined value.